



SEQUENCE LISTING

<110> KADOWAKI, TAKASHI
YAMAUCHI, TOSHIMASA
KAMON, JUNJI
WAKI, HIRONORI
NAGAI, RYOZO
KIMURA, SATOSHI
TOMITA, MOTOO

<120> INSULIN RESISTANCE IMPROVING AGENT

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<140> 10/502,051

<141> 2004-07-30

<150> PCT/JP02/07599

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<150> JP 2002-23554

<151> 2002-01-31

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gac	cag	gaa	acc	acg	act	caa	ggg	ccc	gga	gtc	ctg	ctt	ccc	ctg	ccc	96
Asp	Gln	Glu	Thr	Thr	Thr	Gln	Gly	Pro	Gly	Val	Leu	Leu	Pro	Leu	Pro	
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aag	ggg	gcc	tgc	aca	ggt	tgg	atg	gcg	ggc	atc	cca	ggg	cat	ccg	ggc	144
Lys	Gly	Ala	Cys	Thr	Gly	Trp	Met	Ala	Gly	Ile	Pro	Gly	His	Pro	Gly	
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cat	aat	ggg	gcc	cca	ggc	cgt	gat	ggc	aga	gat	ggc	acc	cct	ggt	gag	192
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His	Asn	Gly	Ala	Pro	Gly	Arg	Asp	Gly	Arg	Asp	Gly	Thr	Pro	Gly	Glu	
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Gly	Glu	Thr	Gly	Val	Pro	Gly	Ala	Glu	Gly	Pro	Arg	Gly	Phe	Pro	Gly	
				85					90					95		
atc	caa	ggc	agg	aaa	gga	gaa	cct	gga	gaa	ggt	gcc	tat	gta	tac	cgc	336
Ile	Gln	Gly	Arg	Lys	Gly	Glu	Pro	Gly	Glu	Gly	Ala	Tyr	Val	Tyr	Arg	
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tca	gca	ttc	agt	gtg	gga	ttg	gag	act	tac	gtt	act	atc	ccc	aac	atg	384
Ser	Ala	Phe	Ser	Val	Gly	Leu	Glu	Thr	Tyr	Val	Thr	Ile	Pro	Asn	Met	
		115					120					125				
ccc	att	cgc	ttt	acc	aag	atc	ttc	tac	aat	cag	caa	aac	cac	tat	gat	432
Pro	Ile	Arg	Phe	Thr	Lys	Ile	Phe	Tyr	Asn	Gln	Gln	Asn	His	Tyr	Asp	
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145					150					155					160	
gcc	tac	cac	atc	aca	gtc	tat	atg	aag	gat	gtg	aag	gtc	agc	ctc	ttc	528
Ala	Tyr	His	Ile	Thr	Val	Tyr	Met	Lys	Asp	Val	Lys	Val	Ser	Leu	Phe	
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aag	aag	gac	aag	gct	atg	ctc	ttc	acc	tat	gat	cag	tac	cag	gaa	aat	576
Lys	Lys	Asp	Lys	Ala	Met	Leu	Phe	Thr	Tyr	Asp	Gln	Tyr	Gln	Glu	Asn	
			180					185					190			
aat	gtg	gac	cag	gcc	tcc	ggc	tct	gtg	ctc	ctg	cat	ctg	gag	gtg	ggc	624
Asn	Val	Asp	Gln	Ala	Ser	Gly	Ser	Val	Leu	Leu	His	Leu	Glu	Val	Gly	
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His Asn Gly Ala Pro Gly Arg Asp Gly Arg Asp Gly Thr Pro Gly Glu
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Lys Gly Glu Lys Gly Asp Pro Gly Leu Ile Gly Pro Lys Gly Asp Ile
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Gly Glu Thr Gly Val Pro Gly Ala Glu Gly Pro Arg Gly Phe Pro Gly
 85 90 95

Ile Gln Gly Arg Lys Gly Glu Pro Gly Glu Gly Ala Tyr Val Tyr Arg
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Ser Ala Phe Ser Val Gly Leu Glu Thr Tyr Val Thr Ile Pro Asn Met
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Pro Ile Arg Phe Thr Lys Ile Phe Tyr Asn Gln Gln Asn His Tyr Asp
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Gly Ser Thr Gly Lys Phe His Cys Asn Ile Pro Gly Leu Tyr Tyr Phe
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Ala Tyr His Ile Thr Val Tyr Met Lys Asp Val Lys Val Ser Leu Phe
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Lys Lys Asp Lys Ala Met Leu Phe Thr Tyr Asp Gln Tyr Gln Glu Asn
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Asn Val Asp Gln Ala Ser Gly Ser Val Leu Leu His Leu Glu Val Gly
195 200 205

Asp Gln Val Trp Leu Gln Val Tyr Gly Glu Gly Glu Arg Asn Gly Leu
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His Asp Thr Asn

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Gln Ala Leu Leu Phe Leu Leu Ile Leu Pro Ser His Ala Glu Asp Asp
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gtt act aca act gaa gag cta gct cct gct ttg gtc cct cca ccc aag 153
Val Thr Thr Thr Glu Glu Leu Ala Pro Ala Leu Val Pro Pro Pro Lys
25 30 35

gga act tgt gca ggt tgg atg gca ggc atc cca gga cat cct ggc cac 201
Gly Thr Cys Ala Gly Trp Met Ala Gly Ile Pro Gly His Pro Gly His
40 45 50

aat ggc aca cca ggc cgt gat ggc aga gat ggc act cct gga gag aag 249
Asn Gly Thr Pro Gly Arg Asp Gly Arg Asp Gly Thr Pro Gly Glu Lys
55 60 65

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gat gtt gga atg aca gga gct gaa ggg cca cgg ggc ttc ccc gga acc Asp Val Gly Met Thr Gly Ala Glu Gly Pro Arg Gly Phe Pro Gly Thr 85 90 95 100	345
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aag gac aag gcc gtt ctc ttc acc tac gac cag tat cag gaa aag aat Lys Asp Lys Ala Val Leu Phe Thr Tyr Asp Gln Tyr Gln Glu Lys Asn 185 190 195	633
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caa gtc tgg ctc cag gtg tat ggg gat ggg gac cac aat gga ctc tat Gln Val Trp Leu Gln Val Tyr Gly Asp Gly Asp His Asn Gly Leu Tyr 215 220 225	729
gca gat aac gtc aac gac tct aca ttt act ggc ttt ctt ctc tac cat Ala Asp Asn Val Asn Asp Ser Thr Phe Thr Gly Phe Leu Leu Tyr His 230 235 240	777
gat acc aac tga ctgcaactac ccatagccca tacaccagga gaatcatgga Asp Thr Asn 245	829
acagtcgaca cactttcagc ttagtttgag agattgattt tattgcttag tttgagagtc	889

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Pro Pro Pro Lys Gly Thr Cys Ala Gly Trp Met Ala Gly Ile Pro Gly
 35 40 45

His Pro Gly His Asn Gly Thr Pro Gly Arg Asp Gly Arg Asp Gly Thr
 50 55 60

Pro Gly Glu Lys Gly Glu Lys Gly Asp Ala Gly Leu Leu Gly Pro Lys
 65 70 75 80

Gly Glu Thr Gly Asp Val Gly Met Thr Gly Ala Glu Gly Pro Arg Gly
 85 90 95

Phe Pro Gly Thr Pro Gly Arg Lys Gly Glu Pro Gly Glu Ala Ala Tyr
 100 105 110

Met Tyr Arg Ser Ala Phe Ser Val Gly Leu Glu Thr Arg Val Thr Val

115

120

125

Pro Asn Val Pro Ile Arg Phe Thr Lys Ile Phe Tyr Asn Gln Gln Asn
 130 135 140

His Tyr Asp Gly Ser Thr Gly Lys Phe Tyr Cys Asn Ile Pro Gly Leu
 145 150 155 160

Tyr Tyr Phe Ser Tyr His Ile Thr Val Tyr Met Lys Asp Val Lys Val
 165 170 175

Ser Leu Phe Lys Lys Asp Lys Ala Val Leu Phe Thr Tyr Asp Gln Tyr
 180 185 190

Gln Glu Lys Asn Val Asp Gln Ala Ser Gly Ser Val Leu Leu His Leu
 195 200 205

Glu Val Gly Asp Gln Val Trp Leu Gln Val Tyr Gly Asp Gly Asp His
 210 215 220

Asn Gly Leu Tyr Ala Asp Asn Val Asn Asp Ser Thr Phe Thr Gly Phe
 225 230 235 240

Leu Leu Tyr His Asp Thr Asn
 245